UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
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ART UNIT	PAPER NUMBER
3623	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/801,130	BONABEAU, ERIC W.
	Examiner	Art Unit	
	M. Irshadullah	3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _25 October 2004_.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-7,9-30 and 32-40_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-7,9-30 and 32-40_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _10/25/04_.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

U.S. Patent and Trademark Office

PTOL-326 (Rev. 1-04)   Office Action Summary   Part of Paper No./Mail Date 02012005

DETAILED ACTION

1.   This communication is in response to the amendment filed October 25, 2004.

Summary Of Instant Office Action

2.   Applicant's arguments regarding claims 1-40 rejection under 35 U.S.C. 103,

Office Action mailed April 20, 2004 have been fully considered and are responded

below.

3.   Amendments to claims 1, 9, 28, 35 and 37 have been entered.

4.   Pursuant to Applicant's request, claims 8, 31 and 41-43 have been cancelled.

5.   Submission of Non-Patent literature as Examiner's request is duly appreciated

and have been entered.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

7.   Claims 1-7, 9-30 and 32-40 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Keane (US Patent 5,737,581) in view of Shinagawa et al (US Paten

5,897,629).

Keane teaches:

Claim 1.   A method for generating business models for solving a selected

business problem, the method comprising:

a) describing a plurality of computer-simulateable business models, **(Col. 7, lines**

6-8 and Fig. 1 {104, 105, 106, 108 and 109} wherein 104, 105 etc. are business

models which the reference system simulator uses {computer-simulateable}, col.

3, lines 25-30), wherein a business model describes operations of businesses for   .

solving the business problem **(Fig. 4 {400}, described col. 7, line 6 through col. 8,**

line 25 and col. 2, lines 52-55, wherein cited col. 7, lines 6-21 describe operation

of business(es) relating to "making decision (solving) regarding the quality

assurance measures (the business problem) as recited in col. 2, lines 52-55"), and

wherein a business model has an associated operational performance model **(Fig. 1**

{105} and col. 2, lines 54-55, wherein cited "to see the impact of these decisions

on business performance" inferring the provision of relative (associated) model

for business's performance or operational performance thereof), and wherein

business model descriptions **(as discussed above)** comprise one or more computer-

simulateable value propositions (VP) which describe output values provided by

businesses (Col. 5, lines 29-55, wherein consumer' or customer's "goods and services

or type of goods and services purchased {pointing to purchasing the goods and services

"produced or provided or output" by the business}, returning defective products {quality},

his satisfaction and switching to competitive products {value of goods and services to

consumer} etc." indicating reference's teaching claimed "VP describing output values

provided by businesses", and reference system simulating {computer-simulateable} the

VPs, col. 5, lines 28-29 and 36-41"),

     b) describing a business-model environment, wherein the business-model

environment comprises a plurality of computer-simulateable customer models, wherein

the customer models patronize the business models to receive values from the

business models (Col. 6, line 51, Fig. 4 described col. 7, line 5-col. 8, line 25 and Fig. 8,

described col. 14, line 52 through col. 15, line 15, wherein cited "description of business

model" indicating claimed "describing a business model environment", "consumer

model" pointing to claimed "customer model", the consumer or customer model being

part of system 100 {business model environment comprising}, as discussed above, is

simulated {computer-simulateable}, and citation of "customer or consumer model

emulating goods and services customer purchased and simulating received {bought}

defective products {quality} and returning them" pointing to "consumer or customer

model obtaining and treating {patronizing}" the information relating to goods and

services bought and returned defective ones by consumers or customers and the

consumer or customer model obtaining or receiving the information or values from the

business models, as indicated by: "business model including information regarding

goods and services produced by the business and the products and services purchased

and returned the defective ones by the consumer or customer, col. 7, lines 6-16", i. e.,

"customer model obtaining and treating {patronizing} the information or values received from the business models"),

c) determining the operational performances of the businesses described by the plurality of business models (Col. 4, lines 34-36 and Figs. 2 and 4, wherein execution (or implementation) of steps of the Figs. infer operations for determining performance of business(es) in accordance with above discussed number (plurality) of business models) by simulating (i) the plurality of business models (Fig. 1 {100 and 104, 105, 106, 108, 109}, described col. 2, lines 61-67 and col. 3, lines 25-30), and (ii) the business model environment, including simulating the customer models receiving values from the business models (Fig. 1 {100 and 107} and discussion about "environment" and "receiving values" above), and

In the following element d):

d) generating a next plurality of business models from the simulated plurality of business models by performing an evolutionary method including:

(i) determining business-model fitness in dependence on the operational business-model performances,

(ii) selecting one or more business models in dependence on their fitness, and

(iii) transforming the selected business models into new business models by applying one or more genetic operators, wherein the new business models incorporate elements of the selected business models.

Keane teaches:

simulating plurality of business models (Fig. 1 {100 and 104, 105, 106, 108, 109}).

Keane does not teach:

generating a next plurality of business models by performing an evolutionary method and (i)-(iii).

However, Shinagawa et al teach the same:

generating a next plurality of business models by performing an evolutionary method (Col. 5, line 66 through col. 6, line 54, wherein delivery planning unit 12 producing or "generating" a set or "plurality" of modified or new or next proposed delivery plans as indicated by col. 6, lines 35-40: modified delivery route serving as new or next route and on finalizing said modified or new or next routes for all carriers, delivery planning unit 12 producing or generating new or next delivery plans which are termed as proposed delivery plans; said delivery plans are models, lines 50-52. Moreover, said delivery models or plans representing "business models", since they relate to the business of delivery of packages, lines 52-54, and cited genetic algorithm, col. 5, lines 66-67, is "evolutionary method" as per col. 4, lines 37-38 of enclosed Patent 6,576,919 B1);

(i) determining business-model fitness in dependence on the operational business-model performances (Col. 6, lines 15-23, wherein "evaluating fitness" of proposed delivery plans or models indicating "determining business model fitness" and said fitness relating to "operational business model performance" as discussed in Applicant's claim 1c) above);

(ii) selecting one or more business models in dependence of on their fitness (Col. 6, lines 15-23, wherein allocation unit 11 "selecting fittest individuals based on their fitness values", and cited individuals pointing to delivery plans or models or "business models", col. 2, lines 22-23: individuals being candidate solutions, and said solutions are delivery plans, col. 6, lines 21-23: choosing delivery plans or models as the optimal solutions)

(iii) transforming the selected business models into new business models by applying one or more genetic operators (Col. 5, lines line 66 through col. 6, line 3, wherein applying genetic algorithm and its operators crossover, mutation etc. indicating reference's performing "transformation or transforming" above discussed selected delivery plans or models or business models into above discussed next or new delivery plans or business models. In support of genetic algorithm and operators thereof performing transformation, Applicant is referred to US Patent 6,480,832 B2, col. 3, lines 53-65: Genetic algorithms transform populations into new populations, lines 54-55). While Keane provides a simulator for simulating quality of a business's product flow, Shinagawa et al teach a simulating system including genetic algorithm comprising selection, crossover and mutation operators for building a fittest business model for delivery. Both Keane and Shinagawa et al are analogous art in the field of business modeling.

It would have been obvious to one of ordinary skill in the relevant art at the time of instant invention to include Shinagawa et al's features into Keane's invention,

because the combination would provide a system enabling a user to efficiently and

quickly solve multi-constraint problems as commonly faced by businesses.

Claims 2 and 29.   The method of claim 1/28 further comprising repeating one

or more times c) and d), wherein each repeat of c) simulates the plurality of business

models resulting from the previous iteration of d) (Keane: Fig. 2 {254}, col. 4, lines 34-36

recited with col. 6, lines 39-49, wherein "simulation continues" after the determination

made at step 254, and "user given the opportunity to reconfigure (generate) next (or

new) quality model to improve performance" inferring claimed "repeating the steps" for

simulating models obtained in the prior (or previous) steps as per user's choice of steps

including c) and d)).

In the following claim:

Claims 3 and 16.   The method of claim 1/15 wherein the business models are

elements in a space of business models for solving the business problem.

Keane teaches:

solving the business problem (see discussion in applicant's claim 1a) above).

Keane does not teach:

the business models are elements in a space of business models.

However, Shinagawa et al teach the same (Col. 13, lines 41-51, wherein cited "solution

space" indicating reference's teaching "space" having data items or elements depicted

in Fig. 4, and Fig. 4 depicting delivery plan or model or business model, col. 6, lines 50-

52). While Keane provides a simulator for simulating quality of a business's product flow, Shinagawa et al teach a simulating system including genetic algorithm comprising selection, crossover and mutation operators, and the combination would provide a system enabling a user efficiently and quickly solve multi-constraint problems globally or in consideration of entire space.

It would have been obvious to one of ordinary skill in the relevant art at the time of current invention to incorporate Shinagawa et al's feature into Keane's invention for the above stated reason.

Claim 4.   The method of claim 1 wherein at least two business models interact, and wherein c) further comprise simulating interactions between business models (Keane: Col. 6, lines 52-55 and col. 1, lines 11-12).

In the following claims:

Claims 5 and 22.   The method of claim 1/21 wherein the genetic operators comprise a cross-over operator which transforms at least two parent business models into at least one new business model by combining characteristics of both parent business models into the characteristics of the at least one new business model.
Keane teaches:

business models (as discussed above)

Keane does not teach:

cross-over operator which transforms at least two parent business models into at

least one new business model by combining characteristics of both parent business

models into the characteristics of the at least one new business model.

However, Shinagawa et al teach the same (Col. 2, line 37-43, wherein cited "crossover

operator" is employed to "parent individuals", as discussed above, individuals

representing "business models" and cited new individual representing claimed "new

model or business model" and "combining" the features (or characteristics) in the

models is a function which crossover operator performs (See enclosed US Patent

5,136,686, col. 11, lines 44-46). While Keane provides a simulator for simulating quality

of a business's product flow, Shinagawa et al teach genetic algorithm comprising

crossover operator, and the combination would provide a system enabling a user

efficiently and quickly solve multi-constraint problems as commonly faced by

businesses.

It would have been obvious to one of ordinary skill in the relevant art at the time of

instant invention to include Shinagawa et al's features into the Keane's invention for the

reason cited above.

Claims 6 and 23.   The method of claim 1/21 wherein the genetic operators

comprise a mutation operator which transforms a parent business model into a new

business model by modifying a characteristic of the parent business model (Shinagawa

et al: Col. 5, line 66 through col. 6, line 3. Moreover, "modifying" is the function the

mutation operator performs (See US Patent 5,136,686, col. 11, lines 48-49, and see

motivation above).

Claim 7.   The method of claim 1 wherein the business models comprise

parameter data specifying characteristics of the business operations described by the

business models (Keane: Fig. 1 {104, 105, etc.} and col. 3, lines 66-67 recited with lines

52-55).

Claims 9 and 25.   The method of claim 8/15 wherein VPs comprise

descriptions of at least one of: the natures of one or more goods or services provided,

qualities of the goods or services, customers for goods and services, relations with

other business models, and marketing to customers or business models (Keane: Col. 5,

lines 29-36, wherein "defective product" inferring claimed "quality of goods and

services").

Claims 10 and 32.   The method of claim 1/28 wherein business model

descriptions comprises one or more computer-simulateable operational approaches

(OA) which describe inputs to businesses and transformations of inputs to output values

by businesses (Keane: Col. 5, lines 29-30 recited with col. 4, lines 2-10 (See Applicant's

spec. page 16, lines 21-28)).

Claims 11 and 26.   The method of claim 10/15 wherein the OAs comprise

descriptions of at least one of: inputs needed for the goods or services provided,

technology employed to produce the goods or services, and capital and labor needed

for production (Keane: Col. 4, lines 2-10, wherein "capital, material, labor requirements,

etc." inferring claimed description requisite inputs for yielding (producing) products

(goods, services etc.)).

Claims 12 and 33.   The method of claim 1/28 wherein business model

descriptions comprises one or more computer-simulateable revenue mechanisms (RM)

which describe pricing and cost models by which businesses acquire revenues (Keane:

Fig. 1 {106, 108}, col. 4, lines 11-13, 17-18 and col. 2, line 55 (see Applicant's spec.

page 16, line 29 through col. 17, line 4)).

Claims 13 and 27.   The method of claim 12/15 wherein the RMs comprise

descriptions of at least of: a margin or an amount per transaction, a margin or an

amount per unit time, a margin or an amount per unit volume, a transaction pricing

mechanism, a subscription pricing mechanism, a flat rate pricing mechanism, and a

membership-fee pricing mechanism (Keane: Col. 4, lines 11-13, 17-18 and col. 2, line

55, wherein accounting performing "pricing of produce, cost, sales, profit etc." indicating

reference's teaching claimed "at least pricing mechanism").

Claim 14.   The method of claim 1 wherein business models comprise

descriptions of at least one of: one or more inputs to a business, one of more values

output from a business, one or more transformations of inputs into output values by a

business, labor and capital required for a business, and one or more pricing models for

a business (Keane: Fig. 1 {104, 105, 106, 108, 109, 107}, col. 3, lines 25-28 read with

lines 39-42, col. 4, 2-13, 17-18 and col. 5, lines 29-30, wherein lines 39-42 inferring

requisite "inputs" and "goods and services" purchased by consumers point to "outputs

from a business").

Claim 15.   A method for generating business models for solving a selected

business problem 10 comprising:

a) describing a plurality of computer-simulateable building blocks (Keane: Col. 7,

lines 6-8 recited with col. 4, lines 2-13 and 17-20, wherein cited "capital, material, labor

requirement, product (goods, services) type, costs, pricing etc. are elementary

components (building blocks) of business as per applicant's specification page 12, lines

29-31 and page 16, lines 9-12), moreover, cited elementary components (building

blocks) are simulated (col. 3, lines 28-30) for solving the problem "making decision

regarding quality assurance measurements to installed (col. 2, lines 52-55), wherein the

building blocks comprise one or more business elements of the business problem (as

discussed above)), and wherein the building blocks further comprise (i) one or more

computer- simulateable value proposition (VP) building blocks which describe output

values provided by businesses (See discussion of Applicant's claim 8), (ii) one or more

computer-simulateable operational approach (OA) building blocks which describe inputs

to businesses and transformations of inputs to output values by businesses (See

discussion of Applicant's claim 10), and (iii) one or more computer-simulateable

revenue mechanism (RM) building blocks which describe pricing and cost models by

which businesses acquire revenues (See discussion of Applicant's claim 12),

b) generating an initial plurality of business models, wherein a business model

describes operations of businesses for solving the business problem, and wherein a

business model comprises a plurality of building blocks and an associated operational

performance model (See discussion of Applicant's claim 1b) and discussion about

building blocks in 15a) above),

c) determining the operational performances of the businesses described by the

plurality of business models by simulating the plurality of business models (See

discussion of Applicant's claim 1c) above), and

d) generating a next plurality of business models from the simulated plurality of

business models by performing an evolutionary method, wherein the evolutionary

method uses a fitness dependent on the operational business-model performances and

applies genetic operators to the building-blocks of business models (See discussion of

Applicant's claim 1d, i, ii, iii) above), and

e) repeating one or more times the c) and d), wherein each repeat of c) simulates

that plurality of business models resulting from the previous iteration of d) (See

discussion of Applicant's claim 2).

Claim 17.   The method of claim 15 wherein each business element comprises a description of at least one of: an input to a business, a value output from a business, a transformation employed by a business, and a consideration received by a business for an output value (Keane: Col. 3, lines 25-42, wherein citation "various models are inputted" pointing to "at least an input" to business, since each model is an "element" of the business).

Claim 18.   The method of claim 15 further comprising describing a business-model environment, wherein the business-model environment comprises a plurality of computer-simulateable customer models, wherein the customer models patronize the business models to receive values from the business models (See discussion of Applicant's claim 1b) above), and wherein c) further comprises simulating the environment, including simulating the customer models receiving values from the business models (See discussion of Applicant's claim 1c) above).

Claim 19.   The method of claim 18 wherein the customer models descriptions of customer behaviors, wherein the behaviors comprise patronizing a business model (Keane: Col. 5, lines 28-30 read with lines 32-40, wherein "consumer's (or customer's)" "purchasing" of goods and services point to "patronizing" and "returning" of products (goods or services)" and his "dissatisfaction" with products and his tendency for "switching" to other competitive products infer customer's (or consumer's) behavior).

Claim 20.   The method of claim 19 wherein the customer models descriptions of customer behaviors, wherein the behaviors further comprise choosing a business model to patronize and being idle (Keane: Col. 5, line 30, "purchasing" goods, service infer his choice (or choosing) and his choosing (or choice) indicates "patronizing" behaviors which is described as idle state (being idle), see Applicant's spec. page 13, lines 24-26).

Claim 21.   The method of claim 15 wherein the evolutionary method comprises:

a) determining business-model fitness in dependence on the operational business model performances (See discussion of Applicant's claim 1e) above),

b) selecting one or more business models in dependence on their fitness (See discussion of Applicant's claim 1f) above), and

c) transforming the selected business models into new business models by applying one or more genetic operators, wherein the new business models incorporate elements of the selected business models (See discussion of Applicant's claim 1g) above).

Claim 24.   The method of claim 15, wherein each building block describes at least one of: one or more inputs to a business, one or more values output from a business, one or more transformations of inputs into output values by a business, one

or more pricing models for a business, one or more performances of a business (See

discussion of Applicant's claim 14 and col. 2, line 55).

Claim 28.   A method for generating business models for solving a selected

business problem the method comprising:

a) describing a plurality of computer-simulateable building blocks one or more

computer simulateable value proposition (VP) building blocks which describe output

values provided by businesses, and wherein the building blocks also comprise

descriptions of one or more business elements of the business problem **(See**

discussion of Applicant's claim 15a) and 1a) above), and wherein business

elements comprises descriptions at least one of: an input to a business, a value output

from a business, a transformation employed by a business, and a consideration

received by a business for an output value **(See discussion of Applicant's claim 17)**,

b) describing one or more computer-simulateable customer models, wherein the

customer models patronize the business model to receive values from the business

model (See discussion of Applicant's claim 1b) above),

c) determining the operational performance of a business described by a

business model **(See discussion of Applicant's claim 15c) above)**, wherein a

business model comprises a plurality of building blocks and an associated operational

performance model that describe operation of a business for solving the business

problem **(See discussion of Applicant's claim 15a) above)**, and wherein operational

performance is determined by simulating (i) the business model, and (ii) the one or

more customer models receiving values from the business model **(See discussion of Applicant's claim 1c, i and ii above)**, and

d) generating a final business model of improved performance by performing an optimization method, wherein the optimization method (i) uses a fitness dependent on the operational business-model performances **(See discussion of Applicant's claim 15d, wherein considering "next model" in 15d as final one)**, and (ii) substitutes or alters one or more building blocks of the business model **(See discussion of Applicant's claims 5 and 6 wherein genetic algorithm operators crossover and mutation are discussed. Moreover, crossover operator combines by substitution of portions (elements) of one entity (model) with portions of other entity (model) as described in US Patent 5,136,686, col. 11, lines 44-47 and mutation "changes or alters", see US Patent 5,136,686, col. 11, lines 48-49)**.

Claims 30 and 37.   The method of claim 28 wherein the optimization method comprises at least one of: local search heuristics, simulated annealing, reinforcement learning, adaptive computation and machine learning, and an evolutionary optimization method (Keane: Col. 2, lines 55-60, wherein reference system is used as "instructional tool for training" inferring claimed "reinforcement learning").

Claim 34.   A method for generating business models for solving a selected business problem, the method comprising:

a) describing a plurality of computer-simulateable building blocks, wherein the building blocks include one or more business elements of the business problem (See discussion of Applicant's claim 15a) above) and further comprise:

(i) one or more computer-simulateable value proposition (VP) building blocks which describe output values provided by businesses **(See discussion of Applicant's claim 8)** by comprising information describing at least the one of: the natures of one or more goods or services provided, qualities of the goods or services, customers for goods and services, relations with other business models, and marketing to customers or business models **(See discussion of applicant's claim (See discussion of Applicant's claim 9)**,

(ii) one or more computer-simulateable operational approach (OA) building blocks which describe inputs to businesses and transformations of inputs to output values by businesses **(See discussion of Applicant's claim 10)** by comprising information describing at least one of: inputs needed for goods or services provided, technology employed to produce the goods or services, and capital and labor needed for production **(See discussion of Applicant's claim 11)**, and

(iii) one or more computer-simulateable revenue mechanism (RM) building blocks which describe pricing and cost models by which businesses acquire revenues **(See discussion of Applicant's claim 12)** by comprising information describing at least one of: a margin or an amount per transaction, a margin or an amount per unit time, a margin or amount per unit volume, transaction pricing mechanism, a

subscription pricing mechanism, a flat rate pricing mechanism, and a membership fee

pricing mechanism **(See discussion of Applicant's claim 13)**,

b) generating an initial plurality of business models, wherein a business model

describes operations of businesses for solving the business problem, and wherein a

business model comprises a plurality of building blocks and an associated operational

performance model (See discussion of Applicant's claim 15b) above),

c) determining the operational performances of the businesses described by the

plurality of business models by simulating the plurality of business models (See

discussion of Applicant's claim 15c) above), and

d) generating a next plurality of business models from the simulated plurality of

business models by performing an evolutionary method, wherein the evolutionary

method uses a fitness dependent on the operational business-model performances and

applies genetic operators to the building-blocks of business models (See discussion of

Applicant's claim 15d) above), and

e) repeating one or more times c) and d), wherein each repeat of c) simulates

that plurality of business models resulting from the previous iteration of d) (See

discussion of Applicant's claim 15e) above).

Claim 35.   A method for generating business models for solving a selected

business problem, the method comprising:

a) describing a plurality of computer-simulateable building blocks, wherein the building blocks include one or more business elements of the business problem (See discussion of Applicant's claim 34a) above) and further comprise:

(i) one or more computer-simulateable value proposition (VP) building blocks which describe output values provided by businesses by comprising information describing at least one of: the natures of one or more goods or services provided, qualities of the goods or services, customers for goods and services, relations with other business models, and marketing to customers or business models (See discussion of Applicant's claim 34i) above),

(ii) one or more computer-simulateable operational approach (OA) building blocks which describe inputs to businesses and transformations of inputs to output values by businesses by comprising information describing at least one of: inputs needed for goods or services provided, technology employed to produce the goods or services, and capital and labor needed for production (See discussion of Applicant's claim 34ii) above), and

(iii) one or more computer-simulateable revenue mechanism (RM) building blocks which describe pricing and cost models by which businesses acquire revenues by comprising information describing at least one of: a margin or an amount per transaction, a margin or an amount per unit time, a margin or amount per unit volume, a transaction pricing mechanism, a subscription pricing mechanism, a flat rate pricing mechanism, and a membership fee pricing mechanism (See discussion of Applicant's claim 34iii) above),

b) describing a business-model environment, wherein the business-model environment comprises a plurality of computer-simulateable customer models, wherein the customer models patronize the business models to receive values from the business models **(See discussion of Applicant's claim 1b) above)**, generating an initial plurality of business models, wherein a business model describes operations of businesses for solving the business problem, and wherein a business model comprises a plurality of building blocks and an associated operational performance model **(See discussion of Applicant's claim 15b) above)**,

c) determining the operational performances of the businesses described by the plurality of business models by

(i) simulating the plurality of business models (Col. 3, lines 25-30, wherein cited "quality model, business model etc." and "models simulated" indicating reference's teaching the claimed feature),

(ii) simulating the environment, including simulating the customer models, and receiving values from the business models (See discussion of Applicant's claim 15c) above), and

d) generating a next plurality of business models from the simulated plurality of business models by performing an evolutionary method, wherein the evolutionary method uses a fitness dependent on the operational business-model performances and applies genetic operators to the building-blocks of business models (See discussion of Applicant's claim 15d) above), and

e) repeating one or more times c) and d), wherein each c) simulates that plurality

of business models resulting from the previous iteration of d) (See discussion of

Applicant's claim 15e) above).

Claim 36.   A method for generating business models for solving a selected

business problem the method comprising:

a) describing a plurality of computer- simulateable building blocks, wherein the

building blocks include one or more business elements of the business problem (See

discussion of Applicant's claim 34a) above) and further comprise:

(i) one or more computer-simulateable value proposition (VP) building blocks

which describe output values provided by businesses by comprising information

describing at least one of: the natures of one or more goods or services provided,

qualities of the goods or services, customers for goods and services, relations with

other business models, and marketing to customers or business models (See

discussion of Applicant's claim 34i) above),

(ii) one or more computer-simulateable operational approach (OA) building

blocks which describe inputs to businesses and transformations of inputs to output

values by businesses by comprising information describing at least one of: inputs

needed for goods or services provided, technology employed to produce the goods or

services, and capital and labor needed for production (See discussion of Applicant's

claim 34ii) above), and

(iii) one or more computer-simulateable revenue mechanism (RM) building

blocks which describe pricing and cost models by which businesses acquire revenues

by comprising information describing at least one of: a margin or an amount per

transaction, a margin or an amount per unit time, a margin or an amount per unit

volume, transaction pricing mechanism, a subscription pricing mechanism, a flat rate

pricing mechanism, and a membership fee pricing mechanism (See discussion of

Applicant's claim 34iii) above),

b) describing a business-model environment, wherein the business-model

environment comprises a plurality of computer-simulateable customer models, wherein

the customer models patronize the business models to receive values from the

business models (See discussion of Applicant's claim 1b) above),

c) determining the operational performance of a business described by a

business model, wherein a business model comprises a plurality of building blocks and

an associated operational performance model that describe operation of a business for

solving the business problem, and wherein operational performance is determined (i) by

simulating the business model, and (ii) by simulating the environment, including

simulating the customer models receiving values from the business models (See

discussion of Applicant's claim 1c) above), and

d) generating a final business model of improved performance by performing an

optimization method, wherein the optimization method (i) uses a fitness dependent on

the operational business-model performances, and (ii) substitutes or alters one or more

building blocks of the business model (See discussion of Applicant's claim 28d) above).

Claim 38.   Computer executable software instructions stored on a computer

readable medium (Keane: Abstract, lines 20-22 read with col. 3, lines 16-17, wherein

"program" infers claimed "instructions" and "memory" encompasses storage media or

devices, such as HD, CD, Diskette etc. which are considered computer readable and

are used to store "programs or instructions", the software instructions for causing a

computer to:

a) characterize a plurality of computer-simulateable building blocks, wherein the

building blocks comprise one or more business elements of the business problem (See

discussion of Applicant's claim 15a) above), and wherein the building blocks further

comprise (i) one or more computer- simulateable value proposition (VP) building blocks

which describe output values provided by businesses (See discussion of Applicant's

claim 15a, i) above), (ii) one or more computer-simulateable operational approach (OA)

building blocks which describe inputs to businesses and transformations of inputs to

output values by businesses (See discussion of Applicant's claim 15a, iii) above), and

(iii) one or more computer-simulateable revenue mechanism (RM) building blocks which

describe pricing and cost models by which businesses acquire revenues (See

discussion of Applicant's 15a, iii) above),

b) generate an initial plurality of business models, wherein a business model

describes operations of businesses for solving the business problem, and wherein a

business model comprises a plurality of building blocks and an associated operational

performance model (discussion about building blocks in Applicant's claim 15b) above),

c) determine the operational performances of the businesses described by the plurality of business models by simulating the plurality of business models (See discussion of Applicant's claim 15c) above), and

d) generate a next plurality of business models from the simulated plurality of business models by performing an evolutionary method, wherein the evolutionary method uses a fitness dependent on the operational business-model performances and applies genetic operators to the building-blocks of business models (See discussion of Applicant's claim 15d) above), and

e) repeat one or more times the c) and d), wherein each repeat of c) simulates that plurality of business models resulting from the previous iteration of d) (See discussion of Applicant's claim 15e) above).

Claim 39.   Computer executable software instructions stored on a computer readable medium (Keane: Abstract, lines 20-22 read with col. 3, lines 16-17, wherein "program" infers claimed "instructions" and "memory" encompasses storage media or devices, such as HD, CD, Diskette etc. which are considered computer readable and are used to store "programs or instructions"), the software instructions for causing a computer to:

a) characterize a plurality of computer-simulateable building blocks, wherein the building blocks include one or more business elements of the business problem (See discussion of Applicant's claim 35a) above) and further comprise:

(i) one or more computer-simulateable value proposition (VP) building blocks which describe output values provided by businesses by comprising information describing at least one of: the natures of one or more goods or services provided, qualities of the goods or services, customers for goods and services, relations with other business models, and marketing to customers or business models (See discussion of Applicant's claim 35a, i) above),

(ii) one or more computer-simulateable operational approach (OA) building blocks which describe inputs to businesses and transformations of inputs to output values by businesses by comprising information describing at least one of: inputs needed for goods or services provided, technology employed to produce the goods or services, and capital and labor needed for production (See discussion of Applicant's claim 35a, ii) above), and

(iii) one or more computer-simulateable revenue mechanism (RM) building blocks which describe pricing and cost models by which businesses acquire revenues by comprising information describing at least one of: a margin or an amount per transaction, a margin or an amount per unit time, a margin or amount per unit volume, a transaction pricing mechanism, a subscription pricing mechanism, a flat rate pricing mechanism, and a membership fee pricing mechanism (See discussion of Applicant's claim 35a, iii) above),

b) describing a business-model environment, wherein the business-model environment comprises a plurality of computer-simulateable customer models, wherein the customer models patronize the business models to receive values from the

business models, generating an initial plurality of business models, wherein a business

model describes operations of businesses for solving the business problem, and

wherein a business model comprises a plurality of building blocks and an associated

operational performance model (See discussion of Applicant's claim 35b) above),

c) determining the operational performances of the businesses described by the

plurality of business models by (i) simulating the plurality of business models and (ii)

simulating the environment, including simulating the customer models, and receiving

values from the business models (See discussion of Applicant's claim 35c) above), and

d) generating a next plurality of business models from the simulated plurality of

business models by performing an evolutionary method, wherein the evolutionary

method uses a fitness dependent on the operational business-model performances and

applies genetic operators to the building-blocks of business models (See discussion of

Applicant's claim 35d) above), and

e) repeating one or more times c) and d), wherein each c) simulates that plurality

of business models resulting from the previous iteration of d) (See discussion of

Applicant's claim 35e) above).

Claim 40.   Computer executable software instructions stored on a computer

readable medium (Keane: Abstract, lines 20-22 read with col. 3, lines 16-17, wherein

"program" infers claimed "instructions" and "memory" encompasses storage media or

devices, such as HD, CD, Diskette etc. which are considered computer readable and

are used to store "programs·or instructions" and see discussion of Applicant's claim

36)), the software instructions for causing a computer to:

a) describing a plurality of computer- simulateable building blocks, wherein the

building blocks include one or more business elements of the business problem (See

discussion of Applicant's claim 36a) above) and further comprise:

(i) one or more computer-simulateable value proposition (VP) building blocks

which describe output values provided by businesses by comprising information

describing at least one of: the natures of one or more goods or services provided,

qualities of the goods or services, customers for goods and services, relations with

other business models, and marketing to customers or business models (See

discussion of Applicant's claim 36a, i) above),

(ii) one or more computer-simulateable operational approach (OA) building

blocks which describe inputs to businesses and transformations of inputs to output

values by businesses by comprising information describing at least one of: inputs

needed for goods or services provided, technology employed to produce the goods or

services, and capital and labor needed for production (See discussion of Applicant's

claim 36a, ii) above), and

(iii) one or more computer-simulateable revenue mechanism (RM) building

blocks which describe pricing and cost models by which businesses acquire revenues

by comprising information describing at least one of: a margin or an amount per

transaction, a margin or an amount per unit time, a margin or an amount per unit

volume, transaction pricing mechanism, a subscription pricing mechanism, a flat rate

pricing mechanism, and a membership fee pricing mechanism (See discussion of

Applicant's claim 36a, iii) above),

b) describing a business-model environment, wherein the business-model

environment comprises a plurality of computer-simulateable customer models, wherein

the customer models patronize the business models to receive values from the

business models (See discussion of Applicant's claim 36b) above),

c) determining the operational performance of a business described by a

business model, wherein a business model comprises a plurality of building blocks and

an associated operational performance model that describe operation of a business for

solving the business problem, and wherein operational performance is determined (i) by

simulating the business model, and (ii) by simulating the environment, including

simulating the customer models receiving values from the business models (See

discussion of Applicant's claim 36c) above), and

d) generating a final business model of improved performance by performing an

optimization method, wherein the optimization method (i) uses a fitness dependent on

the operational business-model performances, and (ii) substitutes or alters one or more

building blocks of the business model (See discussion of Applicant's claim 36d) above).

Response to Arguments

7.   Applicant's arguments filed October 25, 2004 have been fully considered and are

responded below.

Applicant argues that:

a) Keane et al's col. 5, lines 29-42 do not teach: "business model descriptions

comprising one or more computer-simulateable value propositions (VP) which describe

output values provided by businesses".

In this respect, Applicant is referred to Keane et al's col. 7, lines 6-8 and Fig. 1 {104,

105, 106, 108 and 109} wherein 104, 105 etc. are business models, description of which

comprise: "production of goods and services by the business and consumers

purchasing the goods and services and returning the defective ones, col. 7, lines 8-16",

wherein "production of goods and services" indicating "output produced by a business",

customer "purchasing the products" pointing to "utility" and the returned "defective

products" pointing to "quality" of the products {goods and services}, and the combination

of the discussed features constituting claimed "VP" as described in Applicant's

specification page 3, lines 11-13: "Value proposition (VP) describing an output produced

by a business, its quality or constraints, its likely customers and the value (utility) of the

output to the customers or consumers", and for other claimed features see col. 5, lines

29-55, wherein consumer' or customer's "goods and services or type of goods and

services purchased {pointing to purchasing the goods and services "produced or

provided or output" by the business}, returning defective products {quality}, his

satisfaction and switching to competitive products {value of goods and services to

consumer} etc." indicating reference's teaching claimed "VP describing out values

provided by businesses", and reference system simulating {computer-simulateable} the

VPs, lines 28-29 and 36-41".

b) Keane et al do not-teach: "using the information of Keane's consumer model as one or more value propositions that are part of the business models". Regarding this, Applicant is the discussion above as well as to the following citations and elaboration thereof in element b:

b) describing a business-model environment, wherein the business-model environment comprises a plurality of computer-simulateable customer models, wherein the customer models patronize the business models to receive values from the business models (Col. 6, line 51, Fig. 4 described col. 7, line 5-col. 8, line 25 and Fig. 8, described col. 14, line 52 through col. 15, line 15, wherein cited "description of business model" indicating claimed "describing a business model environment", "consumer model" pointing to claimed "customer model", the consumer or customer model being part of system 100 {business model environment comprising}, as discussed above, is simulated {computer-simulateable}, and citation of "customer or consumer model emulating goods and services customer purchased and simulating received {bought} defective products {quality} and returning them" pointing to "consumer or customer model obtaining and treating {patronizing}" the information relating to goods and services bought and returned defective ones by consumers or customers and the consumer or customer model obtaining or receiving the information or values from the business models, as indicated by: "business model including information regarding goods and services produced by the business and the products and services purchased and returned the defective ones by the consumer or customer, col. 7, lines 6-16", i. e.,

"customer model obtaining and treating {patronizing} the information or values received

from the business models").

c) The parameters of Keane's consumer model are not included in the list of

parameters of any other model.

In response to this, Applicant being well versed in the business model simulation art,

would have appreciably realized that the reference system relating to one business as a

whole comprising a number of constituent models, such as quality model, business

model, consumer model etc., and each of the model ought to have its own parameters,

col. 4, line 2, yet all the models conjoin with each other and hence the parameters

thereof to achieve the resultant output information or values.

In the light of above discussion, it is stated that Applicant's arguments have been

fully considered, deemed unpersuasive and the prior rejection is maintained.

Conclusion

8.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

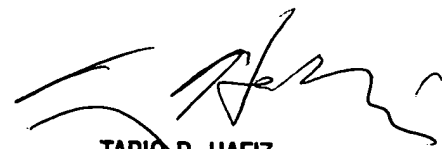than SIX MONTHS from the mailing date of this final action.

9.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to M. Irshadullah whose telephone number is 703-308-

6683. The examiner can normally be reached Monday-Friday from 10:00 a.m. to 6:00

p.m..

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Tariq Hafiz can be reached on 703-305-9643. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

        Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free).

M. Irshadullah
February 01, 2004

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